Properties of Square Numbers

Property 1:

A natural number having 2, 3, 7 and 8 at the unit's place is never a perfect square. In other words, no square numbers end in 2, 3, 7 or 8.

For example,

152, 7693, 88888, 798328 are not the perfect square numbers.

Property 2:

A natural number having 0, 1, 4, 5, 6 and 9 at the unit's place may or may not be a perfect square number.

For example,

1. 100, 25, 36, 49, 64 and 81 are perfect square numbers.
2. 10, 15, 46, 69, 84 and 91 are not perfect square numbers.

Property 3:

If a number has 0 in the unit's place, then it's square ends in 0.

For example,

Perfect square of 10 is 100, 20 is 400, 60 is 3600 and 80 is 6400.

Property 4:

The number of zero at the end of a perfect square is always even. If a number ending in an odd number of zeros is never a perfect square.

For example,

2500 is a perfect square but, 1500, 4700, etc. are not perfect square numbers.

Property 5:

If a number has 1 or 9 in the unit's place, then it's square ends in 1.

For example,

$1^2 = 1$, $11^2 = 121$ and $21^2 = 421$ and $9^2 = 81$, $19^2 = 361$ and $29^2 = 841$

Property 6:

If a number has 2 or 8 in the unit's place, then it's square ends in 4.

For example,

$2^2 = 4$, $12^2 = 144$ and $22^2 = 484$ and $8^2 = 64$,$18^2 = 324$ and $28^2 = 2304$

Property 7:

If a number has 3 or 7 in the unit's place, then it's square ends in 9.

For example,

$3^2 = 9$, $13^2 = 169$ and $23^2 = 529$ and $7^2 = 49$,$17^2 = 289$ and $27^2 = 729$

Property 8:

If a number has 4 or 6 in the unit's place, then it's square ends in 6.

For example,

$4^2 = 16$, $14^2 = 169$ and $24^2 = 576$ and $6^2 = 36$, $16^2 = 256$ and $46^2 = 2116$

Property 9:

If a number has 5 in the unit's place, then it's square ends in 5.

For example, $5^2 = 25$, $15^2 = 225$ and $25^2 = 625$.